

# What organisation is needed to ensure the safe preparation of on-call chemotherapy?

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## INTRODUCTION

Most Centralized Preparation Units (CPUs) encounters difficulties due to chemotherapy requests outside their opening hours.

Various causes:

- ✓ clinical emergencies (macrophagic activation syndrom)
- ✓ Drugs instability (ex : Melphalan)
- ✓ organisational issues (late prescriptions, storage error of preparations)

In parallel to the work that needs be done to eliminate unjustified causes, the CPUs must also find a solution for the management of residual cases.

## OBJECTIVE

To set up an organisation to guarantee an equivalent level of safety for on-call preparations to that of preparations made during opening hours.



## MATERIALS AND METHODS

- ✓ Inventory of on-call chemotherapy preparations requests since 2016
- ✓ Analysis of the chemotherapy preparation process to highlight the critical points.
- ✓ For each critical step, choice and organisation to allow control during the on-call period from
- ✓ Impact on 2021

## RESULTS

From 2016 to 2020, an average of 16 preparations have been made each year on Sundays or bank holidays. The analysis of on-call requests shows that they are mostly anticipated (89% of the 79 preparations).

Years	On -call preparation's number	Different drugs number	Anticipated requests, made during opening hours(	Preparation's justification		
				Drug's instability	Clinical emergency	Others (bad preparation conservation, organisationel issues)
2016	11	8	9	7	2	2
2017	35	12	31	30	4	1
2018	8	4	6	6	2	0
2019	22	14	19	10	0	12
2020	3	3	3	3	0	0
<b>Total</b>	<b>79</b>		<b>68 (86%)</b>	<b>56 (71%)</b>	<b>8 (10%)</b>	<b>15 (19%)</b>

The circuit set up is based on the use of senior pharmacists trained in production :

- Empowered to ensure **pharmaceutical validation of the prescriptions**
- Trained for **chemotherapy preparation** in isolator
- Trained to use the QCRx® or to perform double **visual control** via secured remote control cameras located near the isolators (storage for at least 3 weeks)

### 1<sup>st</sup> 2021 semester 's review :

5 on-call preparations including 3 analytical controls and 2 remote visual controls : 1 azacitidine IV bag and 1 new drug preparation with a 4h stability,

## Pharmaceutical validation, if needed

### Preparation in isolator



Does the preparation requires analytical control?

**YES**

**NO**



Liberating analytical check



Double visual liberating check : camera monitoring



2<sup>nd</sup> remote senior Pharmacist



Liberation and dispensation to clinical service

## DISCUSSION AND CONCLUSION

Our objective was to ensure the safety of preparations made on-call. The use of senior pharmaceutical staff avoids the need to train pharmacy residents or to call on the nurses on the wards. The QCRx® release control coupled with the presence of remotely accessible cameras on our isolators has enabled us to ensure 100% control of preparations without requiring the presence of a second senior pharmacist or the use of the on-call pharmacist resident. However, we must remain vigilant regarding the control of on-call requests because the on-call pharmacist is a lone worker, which in itself constitutes a risk.